## ABSTRACT

An image processing circuit includes a processor that receives a value of an original pixel of an original first video image and a value of an original pixel of an original second video image. The processor generates a first pixel-value component from the value of the original pixel of the first original video image, and generates a second pixel-value component from the value of the original pixel in the original second video image. From the first and second pixel-value components, the processor generates a value of a filler pixel, and combines the filler pixel and the original first video image to generate a resulting video image. One can use such an image processing circuit to generate a filler video field from an original video field and to merge the filler and original fields to generate a resulting video frame. Such an image processing circuit often uses less memory and detects inter-field motion more accurately than prior image processing circuits. Another aspect of the invention distinguishes thin lines from edges more accurately, and thus often produces fewer visual artifacts, than prior image processing circuits.